The Government Perspective towards a Cashless Economy in Malta

Karl Farrugia*, Theresa Demanuele Montebello
Corresponding Author: Karl.Farrugia.c10827@mcast.edu.mt
*Institute for Business, Management and Commerce, MCAST

Abstract: Advancements in technology throughout the years have led to the emergence of cashless societies, in which most of the payments are conducted electronically. In Malta, the accessibility of different payment methods started to increase in 2013, when people started increasing their use of online payments, direct debit, and prepaid cards. Although these cashless systems are convenient and efficient, the Maltese population still use cash as their main payment instrument. Therefore, local banks started to make single payments easy by introducing contactless systems and mobile banking applications. The Government of Malta together with the Central Bank of Malta, are working to move towards a cashless economy which is accessible for everyone. This research focuses on the government's perspective towards a cashless economy in Malta. The results show that a local cashless economy is achievable, but it is something that can be achieved over a longer length of time, rather than being a short term objective. The findings indicate that a cashless economy will have a positive effect on the Maltese economy, and further growth can be expected.

Keywords: Cashless economy, Government of Malta, economics, cashless transactions, Central Bank of Malta

Background

Nowadays, around 3.3 billion people are using smartphones, while advancements in technology are growing rapidly, resulting in the emergence of cashless societies (Holst 2019). A cashless society is a group of people denoted as a society where most of the payments are done electronically and the use of paper money and coins are reduced to the bare minimum (Ibrahim and Zameer 2018). Sweden is predicted to be the first country to have a functioning cashless economy. The following statements validate the argument that in 2016, only 2% of all payments made were done using coins and notes while it is being estimated that by 2020 only 0.5% of transactions will be done by cash (Henley 2016). Other countries like India, the United Kingdom, and Ukraine are also pushing towards a cashless economy as benefits are growing and drawbacks are decreasing (Ibrahim and Zameer 2018).

Introduction

Malta is slowly starting to shift slowly towards a cashless economy. Local banks are trying to make single payments easy by introducing contactless systems and mobile banking applications. HSBC has declared that a strategic plan was introduced to further develop its
focus on digital banking services and the modernisation of its current operations in Malta (HSBC 2019). On the other hand, Bank of Valletta (BOV) recently upgraded their online banking system and introduced two new applications which are: BOV Mobile Banking and BOV Pay, in order to further promote the use of mobile banking and cashless transactions (BOV 2019). Revolut, a foreign digital banking platform, opened its services in Malta and within a year, they grew to 100,000 Maltese users (Pace 2019). This shows that Maltese citizens want the shift to a cashless economy to happen. This research intends to identify the perception of the Maltese government towards the shift of a cashless economy, and how this will impact the Maltese economy. The research question sustaining this research is:

What is the government's perspective towards a cashless economy in Malta?

From the research question, the study aims to address the following research objectives:

• To identify what the government’s perception is, in shifting towards a cashless economy in Malta.
• To determine what the benefits and drawbacks are, of implementing a cashless economy in Malta.
• To determine the government’s perception about adopting a digital currency in Malta.
• To establish how a cashless society will affect the Maltese economy.
• To establish the possibility of a cashless economy for Malta.

**Literature Review**

With the help of technology, a revolutionary in the payment system started to happen. Instruments such as plastic cards, internet banking, pre-paid cards, PayPal, Google Wallet, SMS payments and Bitcoin were all introduced. Together with the new era of commercialisation of the internet, new vocabulary started to emerge, such as cashless economy, e-cash, and electronic commerce (e-commerce) (Akinola 2017). Major banks are predicting that the world is shifting into a new era of cashless, contactless, and secure digital payments (Banker 2016). The development of a cashless economy will impact the actors in the payment system, with anticipated and unanticipated consequences on individuals, organisations, and at different social levels (Akinola 2017). A cashless economy is defined as the application of Information and Communications Technology (ICT) and digital infrastructure in money transactions, where all these transactions are done using cards and digital instruments while the usage of physical currency is kept to the bare minimum. With rapid advancements in Information Technology (IT) and the internet, the monetary system has embarked in a new direction towards using electronic money as legal tender for exchange. Thus, a cashless economy is the alternative monetary system for countries which are dominated by technology. This type of economy results in transparency of the transactions being made all over the world (Fabris 2019).

**The Concept**

A cashless society is based on electronic transactions (e-transactions) which are linked to a bank that has control over these transactions as shown in Figure 1 (Jain and Jain 2017).
Proper infrastructure has to be developed in order for markets to adopt a cashless society. The development of SMS payments, plastic cards, e-transfers, internet banking, digital wallets (e-wallets) and virtual currencies, is contributing to the emergence of cashless economies. The advancement of smartphones, mobile networks, wireless fidelity (Wi-Fi), and near-field communication (NFC) is speeding up the flow of information around the world. Thus, information is becoming easier, faster, and cheaper. The e-transfer infrastructure is more efficient and is resulting in everyone getting closer to shifting from a cash-based transactions, to a cashless society. Therefore, the transfer of money can be done in a fraction of a second from anywhere around the globe. Moreover, as depicted in Figure 2, the percentages of cashless transactions happening in some countries are already at an advanced stage while other countries stand at that tipping point (Jain and Jain 2017). Highly developed countries experience a greater financial and innovation development when compared to developing countries, which leads to a development gap. The level of development of a cashless economy is identified from the following indicators: digitisation of the financial services industry; number of cards per person; use of contactless payments; payments through e-wallet; and the volume of cashless transactions (Oleshko 2019).

Benefits

Trends are showing that there is a significant change from cash to non-cash payments around the world (Banker 2016; Oleshko 2018). Non-cash payments also known as digital payments can help to further reduce the costs of transactions, since people are replaced by computers (Bhatia 2016). When adopting a cashless system there are many benefits like generating faster transactions, providing better hygiene, reducing bacteria-related diseases associated with currency handling, whilst it improves business transparency and reduces the pressure on physical currency (Banker 2016). Furthermore, a cashless economy will increase the transparency in an economy inasmuch as all transactions executed are traceable (Bhatia 2016; Oleshko 2018). With the adoption of a cashless economy, the Reserve Bank of India will save around $3.5 billion from cash printing and circulation only, according to a 2015 report by the Institute for Business in the Global Context (Bhatia 2016).

Moreover, the elimination of cash will lead to a decline in criminal activity, especially those connected with money laundering and drugs, considering that activities such as counterfeiting of money will be virtually impossible with the transition of a cashless economy (Fabris 2019). Apart from that, the government will be in a better position to identify tax evaders and fraud happening around the country (Jain and Jain 2017). This will

Figure 1: E-Transaction (Source: Jain and Jain 2017)
have a domino effect because public revenue will increase, while fiscal deficit and public debt will be lowered (Fabris 2019). The availability of low-cost electronic gadgets, internet accessibility, and the advancement in technologies are making a cashless economy are all helping to develop better security, convenience, and reduce costs. In addition, a cashless economy will make society progressive and will also likely change a country’s status from less developed to a developed country (Jain and Jain 2017).

**Drawbacks**

Arguments of privacy, cyber-crime, uncontrolled spread of cryptocurrency and the lack of knowledge often arise against the argument in favour of a cashless economy (Oleshko 2018). Therefore, the stakeholders of a society: governments, financial institutions and organisations, must collaborate with each other to resolve these issues (Jain and Jain 2017). Electronic payments will track all the financial transactions of an individual. This information can enable customer profiling, commercial use of personal data, the creation of a database with consumer habits and psychological profiles of individuals. This raises the issue on the loss of privacy and a dilemma about who has access to this information. Furthermore, another issue is cybercrime, which is one of the fastest growing number of crimes around the world. Unfortunately, not all banking systems have a high-level of protection (Fabris 2019). Hence, the number of cyber-attacks, for example hacker attacks, espionage, software, and hardware bookmarking equipment have also increased (Oleshko 2018).

Another issue of a cashless economy is the spread of cryptocurrency. The introduction of cryptocurrency into the economy should take into consideration that it is not tied to national states, therefore its ownership and turnover are not controlled. Apart from that, it is not a method of payment, neither a measure for value; and its transactions allow users to avoid paying taxes (Oleshko 2018). Lastly, people’s general financial literacy level is relatively low and poor. In addition, a significant proportion of the elderly population is still highly dependent on cash since their knowledge of digital money is limited, they do not have access to bank accounts, they are IT illiterate and have limited access to the internet. Hence, there must be a national financial education program to increase knowledge about the concept of a cashless economy (Fabris 2019).

**Figure 2**: Percentages of cashless transactions (Source: Jain and Jain 2017)
The Role of the Government

The government is one of the most important stakeholders for a country to make the shift towards a cashless economy (Banker 2016). The government cannot withdraw from its responsibilities in this regard; thus, the state has a new role in a cashless economy (Ingves 2018). The government needs to educate the public about the new system, update and re-arrange the legislation where needed, and implement a cashless environment in the public sector. Thus, the public will be more encouraged to shift to this new technology (Banker 2016). For an effective cashless economy, the government must identify the basic requirements of the people, and then use the features of a cashless society to motivate its citizens to adapt to e-government. E-government is the services offered by the government that can be accessed through the internet, such as license renewal, the disbursement of birth certificates, registration and paying taxes. In Oman, the government provided the Mastercard Internet Gateway Service to both the public and private sectors, with an e-environment for faster and secure public sectors for the country (Jain and Jain 2017).

Cashless policies are a necessity for an increase in economic development, decreasing of frictions that might affect the operations of business transactions and to have financial inclusion (Ogbeide 2019). The idea of a cashless economy raises a lot of questions for economic policymakers, whether it would imply welfare growth or not; the implications for monetary policy; the risks; and if it meets the user demand for money.

When economists draft policy, they should adopt new regulations that guarantee payment security and regulate these transactions. The protection of personal information must be emphasised, since in these systems more personal data is available. This issue can be resolved if the user identification is done by a crypto key that would be made available to a limited number of institutions, such as central banks and tax authorities. Another regulation could be that it should avoid the establishment of large card payment companies and providers. A set of measures must be established in order to increase financial inclusion, as there are a substantial number of persons who do not have bank accounts. Moreover, it is important to increase financial and IT literacy, particularly among the elderly population and marginalised groups. An important step is to develop an adequate infrastructure that provides a higher degree of security. The infrastructure needs to resolve issues of backing up of data and the resilience to external shocks such as viruses and power outages (Fabris 2019).

The Role of the Central Bank

Soon, central banks might develop their digital currencies as an alternative medium to cash, since a number of central banks are investigating the cost and benefits of introducing these digital currencies (Fabris 2019). The German central bank has its own payment systems, both for individual and retail payments. The individual payment systems are relevant for an effective implementation of monetary policy. On the other hand, the Bundesbank plays a complementary role in retail payments (Duemmler and Kienle 2017). Centralised technologies, like those run by a single operator, involve book entry adjustments between different balances on the operator’s ledger. With this approach, the central bank has access to payment information. A central bank digital currency could be inspired by the architecture of cryptocurrencies; however, it would likely have some differential aspects. Bitcoin has a public broadcast of ownership information towards its users; therefore, the central bank cannot utilise this approach. Probably probabilistic
settlement and energy consumption through mining would not be acceptable for central bank digital currency (Rutter and Winther 2018).

Corda, which is an enterprise blockchain, have an architecture that aims to address these issues. Corda offers a peer-to-peer transactional approach that allows enhanced data privacy of payments. The building blocks of Corda are states, contracts, transactions, and flows. The state is the shared data object moved between Corda nodes. The transactions are the proposed changes to the state sent between Corda nodes for signature and verification. Flows represents the asynchronous mechanism of reaching consensus on which transactions are committed between parties. The specific transactions are processed by nodes and notary clusters. The notary cluster is used for the uniqueness, verification, and timestamping, in which they prevent double-spend of states. Figure 3 shows that the top layer is the physical connected network consisting of Corda nodes, owned on-premises or cloud-based. The second layer examines a single node that consists of the vault which is the database that stores the states. The third layer is the applications that run the platform (Rutter and Winther 2018).

![Figure 3: Corda One-Diagram Summary (Rutter and Winther 2018)](image)

The effect of a Cashless Economy on Consumers and Businesses

Consumers

In order for consumers to use cashless instruments, banks are imposing fees when withdrawing cash. Apart from that, bank branches are being closed in several European countries. Thus, customers are more willing to pay by card, which encouraged banks to close more Automated Teller Machines (ATM) (BEUC 2019). The number of ATMs in the European Union (EU) reached its peak in 2014, but after that, the use of ATMs started to decline, as shown in Table 1. The countries with the highest ATMs are Austria (1,415) and Portugal (1,405). This is so, because in Portugal it is against the law to charge fees for ATM withdrawals with debit cards, irrespective of the company running them. Furthermore, in Austria it is also illegal to charge fees for ATM withdrawals except for independent companies. These measures have led to a high number of consumers still using ATMs in...
Portugal and Austria. On the other hand, the countries with the lowest number of ATMs are Sweden (263) and Finland (349). Banks are introducing fees for cash withdrawals, to reduce dependency on cash. Italy has a fee of 3.73% of the amount withdrawn with a minimum of €1.79. In Malta one bank charges €2.50 and another €3 for withdrawals made outside the networks of the consumers’ bank. These measures were also introduced in Greece (BEUC 2019).

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*Table 1: Number of ATMs per million inhabitants (Source: BEUC 2019)*

The rapid advancements towards a cashless economy can affect vulnerable consumers. This is so because, some consumers are excluded from the digital world, since they do not have access to internet connection or, perhaps digital payments are too complicated for them. This situation is mostly experienced by the aging population. In the EU, an average of 5% to 6% have difficulty finding an ATM or a bank, especially if they live in rural areas (BEUC 2019).

**Businesses**

In many EU countries retailers are not accepting cash since bank branches are located far away or ATMs do not accept cash deposits. This can be seen in Sweden, in which 1,400 bank branches no longer accept cash deposits. In Denmark only 23% of the total payments in shops are made using physical currencies (BEUC 2019). Table 2 shows how different business sectors are affected by a cashless economy. Sectors of IT, security services and recruitment services were not negatively impacted with the new wave of digital transactions. On the other hand, sectors such as textiles, construction, logistics and construction materials were significantly affected. Their inability to deal with digital cash affected their demand (Ibrahim and Nasir 2018).

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<th>Relatively Less Impacted</th>
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<td>Agriculture</td>
<td>Automobiles related</td>
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<td>Recruitment agencies</td>
<td>Consumer products</td>
<td>Consumer durables</td>
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<td>Security services</td>
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*Table 2: The impact of demonetisation on different sectors (Source: Ibrahim and Nasir 2018, modified by author)*
The volume of cashless payments in the world market during 2015 amounted to 1.66 trillion USD, which was 14% higher than the previous year. As shown in Figure 4, the ratio of cash and cashless payments in the world is 85 to 15 (Oleshko 2018). The study done by BEUC (2019) shows that in Europe, there is a decrease in paying by a physical currency. Cards and other digital transactions are increasingly used for high amount payments. In Europe, the average value of a cash transaction is €12.38. In Germany, during 2018, card payments accounted for 48.6% of transactions done, while cash payments stood at 48.3% of total retail sales (BEUC 2019).

Figure 4: The share of cashless payments in the world in 2015 (Source: BEUC 2019)

There is a higher development of financial and technological companies that are developing technologies in banking systems, more commonly known as Fintech. Between 2010 and 2015 the total investment in Fintech was $19 billion, of which the main area of investment was on innovative products regarding payments and credits. The highest amount of investment was made by the USA with $7 billion, then by the UK with $1.8 billion and lastly, China with $1.6 billion. These countries hold 73% of the world’s investment in Fintech (Oleshko 2018).

The success rate of a cashless economy is determined by the share of cash in the monetary circulation of the country. Thus, the ratio of cash to GDP is used. Based on this ratio, the most successful cashless economies are observed in developed countries, such as Canada, UK, Norway, Denmark, and Sweden (Oleshko 2018). Moreover, developing countries such as the Middle East and North Africa are a long way behind the countries mentioned above, as half of their population are unbanked, which leads to people using cash as a means of payment. Apart from that, persons who have access to credit cards use them for the sole purpose to withdraw money from ATM machines, rather than using it to carry out online transactions (Banker 2016).

Sweden

Sweden is the leader when it comes to cashless economy (Bhatia 2016). As shown in Figure 5, Sweden’s value of physical money in circulation has decreased yearly, since 2008. This decrease has been accompanied by a decrease in ATMs, with a reduction in physical money being held by banks (Rutter and Winther 2018). This change was also
done in rural areas of Sweden. This has resulted in ATMs being shut down, while POS devices are being increasingly used. This change of shifting Sweden's economy to a cashless one has seen a decline in bank robberies, and an increase in electronic fraud cases (Bhatia 2016; Ingves 2018). The majority of the younger generation do not use cash in Sweden. Half of the merchants in Sweden are expected to stop accepting cash by 2025 (Ingves 2018). Whereas, by 2030 they aim to go completely cashless (Bhatia 2016).

Figure 5: Average value of banknotes and coins in circulation (Source: Rutter and Winther 2018)

Norway

The Norwegian Conservative party appointed a committee whose view is that Norway should become a cashless society by 2030. This committee proposed that the right to pay with physical cash should be abolished. This was backed up by the Tax Administration, Consumer Council, and the Enterprise Federation of Norway (Virke) (Rutter and Winther 2019). The Norwegian Data Protection Authority (DPA) are working toward creating more anonymous solutions of electronic payments, and they proposed refill cards and anonymous travel payment cards. The director of information at the DPA stated that money transfers between individuals should be achievable without the need to leave electronic traces behind since digital transactions can provide detailed information about a person, their interests, attitudes, and behaviours (Rutter and Winther 2018).

The Norwegian tax authorities support the proposals of a cashless economy since crimes related to tax evasion will becomes less of an issue if cash is removed. This authority proposed some solutions to reduce tax evasion and promote cashless payments, such as the removal of Norwegian Krone (NOK) 500 and NOK 1000 bank notes, a maximum amount that can be permitted for cash payments and an amendment to the current legislation to replace the right to pay with cash with the right to use cashless payments (Rutter and Winther 2018). If Norway would remove cash from its economy, a series of laws have to be amended. This includes the Accounting Procedures Act, the Debt Settlement Act, the Securities Trading Act, the Law on Alternative Investment Funds, the Work Environment Act and so much more (Rutter and Winther 2018).
Malta

Between 2013 and 2018, the accessibility of different payment methods increased. This increase was mostly observed in online payments, direct debit, and prepaid cards. Nevertheless, cheques, debit and credit cards were perceived to be more accessible, as shown in Figure 6. The Maltese use alternative payments methods to cash or cheques, due to the convenience, efficiency, safety, payment history and availability of POS systems. Although the Maltese people are presented with new payment methods that are efficient and secure, cash is still the most used payment instrument. This could be due to the lack of alternative means of payment by suppliers or service providers. Thus, there is some shift towards cashless transactions (CBM 2018).

Figure 6: Comparison percentages of the accessibility to different payment instruments/ channels: 2013 and 2018 (%) (Source: CBM 2018)

There is a lack of knowledge regarding the security elements of the different payment methods. The Maltese people perceive credit cards to be less secure than debit cards. Furthermore, the majority of the people do not know the risk of prepaid cards, direct debits, credit transfer, mobile and online payments (CBM 2018). According to the report published by CBM (2018) it is forecast that Maltese households intend to make greater use of debt and credit cards, especially, among younger generations. Apart from that, younger generations intend to increase their use of the online payment services available. Figure 7 indicates that cash is the most popular payment method throughout all of the age groups. Moreover, in the youngest age bracket there are smaller differences in usage throughout the different payment methods (CBM 2018).
As shown in Figure 8, the importance of cards in Malta is similar to that of the EU. On the other hand, the use of cheques is still high in Malta, with 17.3%, while in the EU the use of cheques is only 1.7% (CBM 2018).

**Figure 7:** Percentage usage of payment instruments channels by age group in the next five years (Source: CBM 2018)

**Figure 8:** Relative importance, in percentage, of main payment instruments other than cash in Malta and in the EU in 2017 (Source: CBM 2018)
Research Methodology

Philosophy and Approach

Research philosophy examines a system of beliefs and assumptions about the development of knowledge. The philosophy determined for this research was based on several assumptions. The assumptions are split into epistemological, ontological, and axiological (Saunders et al. 2019). Relativism was selected as the ontological assumption, which indicates that the research assumes that multiple realities exist, and it is shaped by context. For the epistemology assumption the subjectivism approach was adopted, as the researcher had a more in-depth view of the people's perspective (Killam 2013). In this research, axiologically, research bias and subjectivity were accepted (Curmi 2019). From the assumptions outlined, the interpretivism philosophy was adopted. The purpose of an interpretivist research is to create meaningful understandings and different interpretations of context (Saunders et al. 2019). The research approach adopted by the researcher in this study was the inductive approach. This type of framework is particularly concerned with the context obtained, and its only condition is that a small sample of participants are chosen. Researchers adopting this approach are more probable to work with a qualitative methodology, as a more in-depth perception is obtained from the participants under study. The strategy chosen for this research study is a qualitative one. This type of research is considered to give a new dimension to the study which cannot be obtained by a quantitative one. This research was based on thematic analysis, which is a type of method used to analyse qualitative data. Thematic analysis can be applied in many different ways and to different disciplines. This type of analysis focuses on the identification of patterns across a dataset, which helps to answer the research questions that are addressed (Braun and Clarke 2019).

Sampling Method

The sampling method used in this research was the purposive sampling method. This method is a non-probability sampling technique, whereby participants are selected based on the criteria of the research question. Purposive sampling was the best option for this research, as the participants chosen needed to have a high degree of knowledge about economics whilst being government officials, since the study focuses upon a government perspective (Palinkas et al. 2015) A total of four interviews were conducted with economists and financial professionals assigned to key positions within the local government of Malta. The aim of these four interviews was to gain a perspective from a governmental point of view about whether Malta will ever shift to a cashless economy; the adoption of a digital currency; the perceived benefits and drawbacks of such an economy; the effects imposed on the current Maltese economy in the event of a cashless economy; and, what the government’s role would be in the event of a cashless economy becoming a reality.

Data Collection

The data was collected from primary research and secondary research. The collection of primary data can be conducted through, for example, observations, experiments, interviews, and focus groups. For the purposes of this research, primary data was obtained from the original works of the researcher, who collected the data for this specific project. On the other hand, secondary data can be in the form of books, journal
articles, governmental reports, and official statistics for example (Turabian 2013). For the purposes of this research, secondary data was collected by other researchers for another purpose, which included data that was also relevant to the research being conducted for this study.

For the researcher to collect primary data, semi-structured interviews were conducted. Semi-structured interviews consist of a discussion between the researcher and the participant, accompanied by follow-up questions, probes and comments. The purpose behind these types of interviews was to gather information about attitudes, perceptions and beliefs about the questions asked (Dejonckheere and Vaughn 2019). These types of interviews were conducted only once with the participant and it took around 45 minutes to one hour. In order to capture the data effectively, recording of these interviews was a must as handwritten notes during the interview could lead to losing some missing key highlights or body language cues. Moreover, the recordings made it easier for the researcher to focus on how the interview was going and important points made, were not being missed. Lastly, the recordings helped the researcher write a detailed transcript that lead to a better analysis (Jamshed 2014). The secondary research as described by Turabian (2013) is research that collects data that is readily available which is normally used to back-up arguments and assumptions made. The secondary data collected for the purpose of this research were from various peer-reviewed journal articles obtained from various platforms like Emerald Insight, Research Gate and Academia, books – both physical and electronic – and statistics from the National Statistics Office (NSO) Malta and the Central Bank of Malta. The secondary data collected was spread out in the chapters composing the dissertation.

Pilot Study

This step is considered as one of the most important steps in a research project as one can identify potential problems areas and weaknesses prior to the main data collection. In addition, a pilot study can help the researcher familiarise themselves with the questions, protocols, and ambiance of the interview, thus allowing the researcher to gain more confidence when conducting the main study (Hassan et al. 2006). The researcher conducted a pilot study by conducting a test interview with an economist on the 26 February, 2020. The scope of this pilot study was to see whether the questions compiled are understandable and if they answer the research objectives. After the interview, the participant highlighted a number of points which would help the researcher better answer the research question outlined to them. The recommendations were accepted by the researcher, and the questionnaire was adjusted accordingly.

Data Analysis

Qualitative research consists of mainly unstructured data like transcripts, pictures, and observation journals for instance. Data analysis in qualitative research is a creative and dynamic process of inductive judgement in order to form a conceptual framework. Wong (2018) defines data analysis in qualitative research as, “the process of systematically searching and arranging the interview transcripts, observation notes, or other non-textual materials that the researcher accumulates to increase the understanding of the phenomenon”. The most important stage in the analysis of qualitative data involves coding data into different categories based upon identified patterns (Wong 2018). With the advancement of software technology, from coding manually using coloured pens and papers, researchers are shifting to computer assisted qualitative data analysis (CAQDAS)
software which reduces coding time significantly. For this research project, the researcher used MAXQDA software, which helped to gain deeper insights of the data collected, and exploited the efficiency of the process of grouping data according to outlined categories, and retrieving those coded themes as depicted in Figure 9 (MAXQDA, 2018). Furthermore, the researcher still had to analyse the data and understand the meanings extracted from the data collected (Wong 2018).

**Figure 9: Coding using MAXQDA software (Source: Author’s own 2020)**

**Results**

The research is based upon a thematic analysis; hence, themes were identified to answer the research question. The themes are depicted in Figure 10 and all the questions asked were related to the portrayed themes.

**Figure 10: Themes analysed together with research question (Source: Author’s own 2020)**
Moreover, the same themes were used to analyse the transcripts and interlink the literature review with the arguments developed in the interviews by the respondents. A code matrix browser developed by MAXQDA is portrayed in Figure 11.

> Is a cashless economy possible
> Effects
> Government’s Role
  > Example of incentives
  > Legislation
  > Education campaigns
> Digital Currency
  > Virtual Currencies
  > Cryptos
> Benefits & Drawbacks
  > Definition
  > Drawbacks
    > Banks
    > Privacy
    > Elderly population
    > Overtheing economy a
  > Benefits
    > Cost Reduction
    > Facilitate exchange of
    > Audit trail of all transa

**Figure 11: Code Matrix Browser View (Source: Author’s own 2020)**

**Theme 1 – What are the perceived benefits and drawbacks in the event of a cashless economy in Malta?**

**Defining a Cashless Economy**

All the respondents defined a cashless economy as an economy in which all monetary transactions done by the people are carried out digitally. R2 also stated that the amount of transactions carried out in the form of cash is a minor share. R3 stated that the legal tender needs to be changed from cash to electronic money. R4 added that the community sees a cashless economy such as e-cards, e-wallets, and other electronic payment instruments. This confirms how Fabris (2019) defined a cashless economy in which it is the application of ICT that digitises money transactions. These money transactions are done using cards and digital instruments whilst the usage of cash is kept at the bare minimum. Hence, the monetary system is taking a new direction with a change in its legal tender.
Perceived Benefits In The Event of a Cashless Economy In Malta

**Audit trail of all transactions**

Significant emphasis was made upon the diminishing of tax evasion, money laundering, black market activities and fraud. All respondents mentioned that this could be possible because a cashless economy leaves an audit trail of all the transactions made. R2 more specifically, mentioned that it will help the government be more transparent and honest. R4 added that society wants this audit trail to especially focus on politicians because society does not want corruption. R4 also stated that the FIAU has put in a lot of effort, over the years, to see that all assets are declared so the system is as transparent as possible, however, cash remains anonymous. Moreover, a lot of global pressure is placed upon financial controllers to eliminate the anonymity of cash, and this can only be achievable by establishing a cashless economy. R1 stated that 25% of Malta's GDP consists of black economic activities, this means that if it is eliminated the government will make more public money from all transactions made. This public revenue could be utilised to improve the welfare system of the Maltese Islands. The arguments of Banker (2016) and Fabris (2019), corresponded with the participants' responses as they stated that the elimination of cash will lead to a significant decline in criminal activity; especially money laundering and drugs, and, by doing so public revenue will increase, while this will reduce fiscal deficit and public dept. Moreover, Bhatia (2016), Jain and Jain (2017) and Oleshko (2018) all argued that it also improves businesses transparency and accountability.

**Cost Reduction**

R3 and R4 stated that a cashless economy is far cheaper to handle than the economy known today. R4 stated that, paper products need maintenance and every denomination has to be kept in good quality. Moreover, cash involves a lot of security by private securities and police patrols, which comes at a significant cost. R3 built on the same argument and said that the transportation of cash is conducted with specific armoured trucks and requires a good number of police to patrol the truck from point A to point B, especially when there is a considerable amount of money being transported. Both respondents stated that this money could be utilised elsewhere like for example upgrading Malta's IT infrastructure. R4 stated that this economy also comes as a substantial expense to businesses, according to the Malta Chamber of Small and Medium Enterprises since businesses such as supermarkets which transact in cash, need to hire security guards and invest in various security systems. This corresponds to what Bhatia (2016) acknowledged when India started shifting to a cashless society, the Reserve Bank of India saved around $3.5 billion in cash printing and circulation, whilst according to Banker (2016) it would reduce the physical pressure on other institutions especially the police force.

**Facilitating exchange of different currencies**

R1 and R4 outlined that a cashless economy facilitates the exchange of different currencies for tourists and businesses alike. R1 said that since the Maltese economy is based upon the tourism industry, it could be a huge benefit, since this will ease any unnecessary pressure when exchanging cash, for tourists coming to Malta from outside...
the Eurozone. This could be done by the use of Visa, which is accepted worldwide, as stated by R4. This benefit was not outlined in the literature review but according to the NSO (2020) the highest number of tourists who visited Malta in 2019 came from the UK which amounts to 28,122, while tourists from Non-EU countries amounted to 17,943 from a total of 120,669 tourists who visited Malta.

Perceived Drawbacks In the Event of a Cashless Economy in Malta

Banking Operations

All respondents have indicated the challenges associated with banks and their operations. R3 stated that in a number of countries including Malta it is considered challenging and difficult to open a basic account. For a cashless economy to succeed, banking services must be accessible to all members of society. R4 added to this drawback by outlining that immigrants, irrelevant of their legal or illegal status, do not have a bank account for the first three months till documentation is prepared by the Maltese authorities. Hence, they do not have access to digital instruments in order to participate in a cashless economy. In addition, R4 developed the argument by stating that the law does not allow people below the age of 16, to open a bank account, another drawback in accessibility to all members of society to participate in this type of economy. R1 added that banks charge fees of 2% on every digital transaction made via their platforms, this could mean that prices inflate by 2% as businesses tend to want to cover this expense. R2 indicated that businesses are not in favour of this economy, because there are charges which are incurred, while when using cash, these same charges are not experienced. Since banks are considered private, and are not backed by a central authority, banks are subject to insolvency and failure.

Elderly population

The respondents identified that bringing the elderly population into a digital economy would be problematic. R1 and R2 explained that educational campaigns will not work with this segment of the population, since it is very complicated to change life-long traditional habits among the elderly. Most of the Maltese elderly population is considered IT illiterate, hence, to make them participate in a digital world is still a farfetched scope. R4 added, stating that the challenge of illiteracy in IT within this population segment for the government is to make them believe that the system is safe to use, and that their money is protected. R3 emphasised that there cannot be an economy where there are some members of society who cannot participate in it, irrelevant of what that factor might be, as this fear brings resistance to change. This was confirmed by Fabris (2019) where he discussed the matter that the elderly population will still be highly dependent on cash due to their low level of financial and IT literacy whilst experiencing challenges when accessing or attempting to access the internet, which is one of the fundamentals when having a cashless economy.

Overheating Economy and Inflation Fears

Uncertainties arose regarding the overheating of an economy and inflation fears. R1 illustrated the point that a cashless economy might lead to an overheating economy
where the economy will grow to a certain extent that it will lead to higher prices. R1 and R3 stated that by adopting this economy there will be an inflationary affect. This is so since, psychological studies identified that consumers tend to purchase more when buying via electronic instruments, hence increasing consumption. Higher consumption leads to a higher price, which results in inflation.

**Invasion of privacy**

Invasion of privacy counter argues the fact that a cashless economy leaves an audit trail of all transactions. R1 said that a cashless economy will go against the data protection act where a person does not have any privacy when they affect and receive payments. R2 stated that it can be considered unethical to invade the privacy of a person and can be of a political advantage for whoever is in the opposition. R4 confirmed that people do not like control which is being forced by the government either for honest or dishonest reasons. This drawback coincides with the drawback identified by Oleshko (2018) when he stated that, electronic transactions can be tracked and that this data can be used for customer profiling, for the commercial use of personal data and to identify customer habits for marketing purposes.

**Other arguments**

Oleshko (2018) also identified other arguments against a cashless economy and mentioned, in particular, cyber-crime and the uncontrolled spread of cryptocurrency. On the other hand, the respondents identified issues which directly impact consumers, that is, inflation and banking systems.

**Theme 2 – What is the role of the government in the event of a cashless economy in Malta?**

The government is the most important stakeholder in a cashless economy. As a matter of fact, the respondents determined what the government's role will be in the event of a cashless economy for Malta. The key points identified were: legislation, educating human capital, and incentives.

**Legislation**

Legislation is an important factor in a cashless economy. Thus, this key point was given importance by all the respondents. R3 started the argument by noting that the first step required for Malta is to change the legal tender for payments, which presently is cash, as until now buyers and sellers, strictly speaking, can pay by cash anywhere, one cannot say that you can to pay electronically everywhere. This statement was backed up by R1 who stated that it needs to be obligatory for all vendors in Malta to accept any form of digital instrument to enable consumers to pay digitally.
R4 also brought forth the matter that legislation for a cashless economy needs to change to cater for all members in society, because at present banks only allow persons over 16 years of age to open a bank account. According to 2019 figures the local population of persons who are under the age of 16, amounts to 71,798 (NSO 2019). R3 expands on this point, and insists that it is of the outmost importance to ensure that all members of society must have access to banking services to be able to implement a cashless economy successfully; and that if this prerequisite is not satisfied, it will not be possible to have a cashless economy. This coincides with what Fabris (2019) argued about when he emphasised that governments must implement a set of measures to increase financial inclusion, as a substantial segment of locals do not have access to, or do not have a bank account. R2 stated that in order for a cashless economy to be successful, a central authority needs to be in control of all the workings of such economy, and Maltese law must be able to protect the way we operate within a cashless economy, which is yet not a potential reality since all banks are privately owned. R4 suggested that it is necessary that a central authority exists to create and fortify the infrastructure for the public to accept and take on board digital payments. This will solve some problems as at present, cash satisfies every requirement for every member of society to participate in the economy. Duemmler and Kienle (2017) stated that the German Central Bank already has its own digital payment systems both for individuals and businesses, hence, it is an achievable objective for Malta too.

**Education**

The need for human resources to implement a strategy that leads Malta to a cashless economy, cannot be downplayed, hence the government needs to prioritise plan and start training human capital to be prepared for whenever the shift to a cashless economy is necessary, in the immediacy.

R1 stated that the government needs to start encouraging students in their early academic career, to want to take up jobs within the cashless economy sector. R1 emphasised two sectors worthy of note for up and coming students wanting to obtain jobs in a cashless economy. These are: the IT and ICT sector since a cashless economy requires a lot of related resources; and the enforcement sector, especially the cybercrime unit. R3 also gave importance to the cybercrime unit within the Malta Police Force and the need for it to have the necessary skills to operate within a digital economy which is subject to cybercrime. R4 agreed that ICT is an extremely important industry and it will prove a big challenge to the CBM. Much of the CBM's human resources are trained in the printing industry and the processing of paper, hence R4 specified that Malta needs time to shift to a cashless economy because of the need for human capital with the right skills and knowledge for this new economy. R2 emphasised that we have a proportion of people aged between 15 to 22, who are not in employment, education or training, known as NEETS, and this will be a pullback when the shift to a cashless economy is done. R1 suggested that education needs to emphasise these skills from a child's early years to introduce digital instruments and digital currencies. It is important that the government makes sure that the people leaving secondary education need to be literate, and know basic English, Maltese, IT, and mathematics. This argument corroborates both studies conducted by Fabris (2019) and Ogbeide (2019), in which they state that governments need to work upon the increase of financial and IT literacy, particularly amongst the elderly population. R1 specified that MCAST is contributing towards training the necessary human capital since the college introduced the course, *Introduction to programming Blockchain Technology*, at diploma level. These are clear indications demonstrating a future shift to a cashless economy.
Incentives

Incentives are used to support the government to achieve an objective. Therefore, to shift to a cashless economy a government may use this technique to get the people in line with their objectives. R3 stated that the government needs to adopt a carrot and stick approach because one cannot tend solely towards punitive measures, or make changes and expect people to adapt without the necessary provisions, as already mentioned by the interviewees in this study. Often people tend to resist change, and this is especially so when it involves money, making the successful introduction of incentives for a smooth implementation of a cashless economy. R1 and R2, confirmed R3's argument and opined that incentives are more popular in the Mediterranean culture since people in this region tend to be more resistant to change. R4 mentioned that together with incentives, the government must allow for a transitional period; as was done when Malta shifted from Maltese Lira to Euro, whereby a transition period of 10 years was given for the people to exchange their Maltese Lira to Euro. R3 suggested that since the government is the biggest project executor in Malta and owes payments to various businesses for work carried out on its behalf, an incentive could be that the government pays the direct sum in full, if accepted digitally, whilst the government will only pay in instalments if the business insists on having the amount due, paid in cash. Obviously, this was on-the-spot thinking by R3, who also mentioned that the government will be generous on the incentives it will give for a cashless economy to be successful, as it is something that they believe in. There were no mentions in the literature of incentives, but the respondents gave it importance and stated that it is very popular for governments to introduce such incentives to ease matters for the public, during a transitional period of this sort.

Theme 3 – In the event of a cashless economy, would the government consider adopting a digital currency?

Two viewpoints were identified when this theme was answered by the respondents and these viewpoints are crypto currencies and virtual currencies.

Virtual Currencies

R3 defined virtual currencies as the virtual equivalent of the world currencies which will be directly pegged to the value of the currency. Virtual currencies are stable coins that are backed by assets and is a context which fulfils the functions of money. R4 added that the government does not mind how the euro is represented as long as it is represented. R4 said that paper is being phased out by time hence, a virtual euro is probably how Malta will represent the Euro in the future. The fact remains that the CBM needs to monitor how the properties and business model behind this virtual currency, will evolve as this is what really makes a difference. R3 expanded further expressing that the government must guarantee to work on a monetary policy to confirm that the Euro remains relevant to the community to interact with.

Crypto Currencies

The respondents all agreed that crypto currencies, as they are known today, will never replace the currency for various reasons. R3 discussed that the government is sceptical about crypto currencies since it is considered to be solely based upon speculation.
also explained the government's scepticism surrounding crypto currencies is founded on a lack of facts and is solely based upon speculation. R4 added that from studies carried out by the CBM, crypto currencies cannot survive on their own, as they need to be regulated either by legislation or by a central authority. R2 stated that although crypto currencies are being used in certain areas of international economies, they are negatively perceived by financial institutions worldwide, because it can facilitate money laundering, which a government would never want to associate themselves with. This concurs with what Oleshko (2018) where he states that if crypto currencies are introduced in the economy, one should take into consideration that its ownership and turnover are not controlled, as it is not tied to a national state. In addition, Oleshko (2018) emphasised that transactions done by crypto currencies are tied to money laundering and other black economic activities. Furthermore, R1 stated that crypto currencies are not viable for any economy as they do not fulﬁl the characteristics of money, especially in the role of a store of value. This was conﬁrmed by both R2 and R4, who both emphasised the fact that crypto currencies do not fulﬁl the functions of money. R4 added that a government can never adopt a currency which is highly volatile and ﬂuctuates drastically, as the government needs to guarantee ﬁnancial stability in the country.

On the other hand, the respondents like the technological aspect behind the crypto currencies which is the Distributed Ledger Technology (DLT), more speciﬁcally known as the blockchain technology. In fact, R3 recalled the legislation that was introduced in Malta back in 2018 regarding this technology, which clearly states that Malta is preparing for the event of a cashless economy. R4 added that the introduction of this legislation paved the way forward for the CBM to research and build a better technological infrastructure to keep up with the trend of people using digital means to ﬁnance their transactions. R1 stated that the two big banks in Malta, HSBC and BOV, are both prioritising their ﬁnances to invest in a better IT infrastructure, since the digital trend is gaining more momentum. R4 emphasised that the concept of smart contracts is something which is highly interesting for the government, which could result in a better ﬁnancial system than we currently operate today. Rutter and Winther (2018), in parallel with the sentiment expressed by the respondents, state that the use of technology is more likely to be used by governments and central banks alike. As a matter of fact, the authors proposed a new solution for Central Banks in the name of Corda, an enterprise blockchain.

Theme 4 – Is a cashless economy achievable in Malta and what are the effects imposed on the current Maltese economy?

This theme will present the government's perception on whether a cashless economy is achievable in Malta; and the effects this will impose on the current Maltese economy.

Is a Cashless Economy Achievable?

R1 deliberated on the concept of cashless economy moving rapidly, with countries like India and Sweden, where the usage of cash is dropping drastically. R4 conﬁrmed R1’s statement and added that apart from these two countries, The Netherlands – a Eurozone country – is also working hard to achieve this concept. Hence, Malta also being a Eurozone country, it is only a matter of time until it too adopts a cashless economy. As matter of fact, R4 stated that the government is already paving the way for this event to happen. In the Budget for the year 2020, it introduced a new limit for cash transactions exceeding
€10,000, stating these must be done digitally. R2, added that although these measures are to reduce money laundering, it is a starting point for this economy to happen. R3 backed up both respondents and stated that the government is already working on this event, although the amount needs to be reduced further, until it reaches the €0 mark when all transactions will happen digitally. R2 countered what R3 stated, explaining that it is far more possible to have a near cashless economy, than to have a complete shift to a cashless economy. This is because in Malta, cash is a very popular means of payment. In fact, the argument built by R2 is backed up by Rutter and Winther (2018) where they stated that a near cashless society is more achievable, than an entirely cashless society until several issues are faced. In addition, the CBM (2018) stated that locally, cash is the most popular payment method through all age groups. On the other hand, R4 does not agree with R2. R4 argued that a near cashless economy is not possible, as the infrastructure of cash is expensive to maintain and protect, hence it is not viable to keep up the maintenance and protection of cash when 9 out of every 10 in the population are using digital payments.

All respondents agreed that a cashless economy is achievable in Malta, but it is an event that will be long term not short term. R1 and R3 backed this argument up with the examples of Sweden and Norway, both countries started this process 15 years ago and are still not cashless 15 years later. R3 specified that the rapid advancement of technology and smartphones is paving the way forward for a cashless economy to happen, not just in Malta but in various other countries within Europe. R4 indicated that the present situation Malta is facing – the COVID-19 pandemic and its required safety measurements – is further accelerating the process to shift to a cashless economy as businesses are shifting online in order to survive. R3 backed R4’s argument and stated that once people experience this new normal of convenience, it will only develop a further liking to it, after which there will be no going back. Consequently, a cashless economy is already a part of Malta’s real economy.

**Effects Imposed on The Current Maltese Economy in the Event of a Cashless Economy**

R1 argued that a cashless economy will surely open up market operations, hence it will facilitate trade between countries. R4 backed up the argument and stated that Malta is highly dependent on both imports and exports due to its geographical location and size, therefore this will lend a positive effect to the current Maltese economy. R1 said that since a cashless economy will result in more consumption, it will increase revenue generated by businesses in Malta. R2 argued that prices might increase in this event as the expenses a business incurs to invest in the infrastructure required to accept digital payments, will subsequently be reflected in higher prices for the consumer. R3 said that this shift will affect the smaller service sector more, including business owners such as panel beaters, painters, mechanics, and plasterers since the majority of their transactions deal with cash transactions. This coincides with Table 2 adapted from Ibrahim and Nasir (2018), who identify that automobiles related services, construction and construction materials services are significantly impacted. Furthermore, R3 stated that given the time to adapt this service sector will make this transition as well, it may take longer, nevertheless they will surely adapt.

R1 and R4 stated that the GDP of the country will increase thanks to this economic shift. R1 observed that the world is moving away from using GDP as a tool to measure how well an economy is going and many now prefer to use the Better Life Index. Since privacy issues crop up with a cashless economy, this may affect the happiness of the citizens of
Malta, and eventually affect factors of this index. On the other hand, R4 said that this index may prosper even more with the local introduction of a cashless economy. This can be backed up by Figure 12, whereby according to the better life index issued by the OECD, Norway is in the lead, when taking into consideration all the factors that make up the whole index.

![Figure 12: OECD Better Life Index sorted by rank (Source: OECD 2020, modified by author)](Image)

**Figure 12:** OECD Better Life Index sorted by rank (Source: OECD 2020, modified by author)

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**Proposed Model**

![Proposed Model](Image)

**Figure 13:** Proposed model developed from analysis conducted (Source: Author’s own 2020)

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Conclusion

The main benefits and drawbacks outlined

A cashless economy is an economy in which the monetary legal tender is changed from cash to electronic money, and transactions are made using digital instruments. This research study highlighted the main benefits of adopting a cashless economy for Malta. Particular benefits outlined by the research participants, include the possibility that a cashless economy may bring about a significant reduction in costs; that it leaves an audit trail of all transactions made for better transparency; and, that it facilitates the exchange of different currencies. This research concluded that a cashless economy is far cheaper to maintain since physical money requires a certain upkeep to maintain the level of quality, and necessitates hiring security and police patrols when transporting cash from point A to point B, which comes at a hefty cost; in parallel with what Bhatia (2016) and Banker (2016) acknowledged, that the shift to a cashless economy will save the government and business many expenses. A cashless economy leaves an audit trail of all the transactions; thus, it will result in the reduction of tax evasion, fraud, and money laundering. This idea builds upon Fabris (2019), who contended that with the implementation of a cashless economy, criminal activities will decrease. This corroborates with what emerged from this research study. The participants highlighted that the adoption of a cashless economy will facilitate the exchange of different currencies for both businesses and tourists, especially since tourism makes up a significant percentage of Malta’s economy. A summary of the main benefits of a cashless economy, as outlined by the research participants, is illustrated in Figure 14.

Figure 14: Main benefits identified (Source: Author’s own 2020)
This research study has indicated that the sectors and concerns facing the main drawbacks in the event of a cashless economy are banking, the elderly population, inflation, and privacy as depicted in Figure 15. Participants emphasised that banking is considered a drawback since it is difficult or unfeasible to open a basic account, such as for locals under 16 years of age. This study shed light upon the fact that banks are privately owned and are not backed up by a central authority, thus they are subject to insolvency and failure. The participants indicated that the elderly population might not participate in this type of economy since they are considered as IT illiterate. This is considered as a major challenge to convince them that this system is safe to use. This drawback was also confirmed by Fabris (2019), who suggests that society must access the internet and be IT literate, for a cashless economy to function solely without cash. Furthermore, a cashless economy might lead to an overheating economy in which the economy will grow in such a way that leads to prices increasing. The invasion of privacy is also considered a drawback of cashless economy, since it leaves an audit trail of all the transactions. This was also identified by Oleshko (2018), who indicates that the data from electronic transactions can be used for identifying customer habits, customer profiling and the commercial use of personal data.

**Figure 15: Main Drawbacks Identified (Source: Author’s own 2020)**

**Identifying the government's role in a cashless economy in Malta**

The data from the interviews shows that the government is perceived as the most important stakeholder in a cashless economy. The participants identified three pillars that the Maltese Government needs to work on for a cashless economy to work. These are education, modifying the legislation and investing in incentives. The process of how the government should act is portrayed in Figure 16. It is important that the Maltese government will start training human resources to prepare for the shift of a cashless economy. Thus, the government needs to promote jobs related to the IT industry and the enforcement sector, such as the cybercrime unit. It is imperative that students
leaving secondary education are literate in Maltese, English, IT, and mathematics. This argument corresponds to Fabris (2019) and Ogbeide (2019), who both underscore the importance governments have to increase financial and IT literacy in society. Changing legislation is an important factor to implement a cashless economy in Malta, since the legal tender of payments needs to be changed to shift to digital payments. In order for a cashless economy to be successful, all members of society must have access to cashless services, which need to be controlled by a central authority, and protected by the Maltese law. This coincides with the work of Fabris (2019) who contended that the government must implement measures to increase financial inclusion. Incentives are another way for the government to encourage the public to use digital payments, since at its initial introduction, people may resist the change to a cashless economy.

**Figure 16: Phases of the government’s role (Source: Author’s own 2020)**

**Determining the perception of the government in adopting a digital currency in Malta**

Interviewees determined that the Maltese government is in favour of adopting virtual currencies, and further exploiting blockchain technology. Virtual currencies are stable coins that are backed by assets and fulfil the functions of money. The research study indicated that the government does not mind how the Euro currency is represented as long as it is represented and backed up by a trusted authority. Since paper money is being phased out, it is likely that the virtual Euro will represent the Euro in Malta, in the coming years. Crypto currencies were criticized by the respondents because they are not backed up by a central authority. It was indicated that a strong link exists between crypto currencies, money laundering and black economic activities, and the government would never want to associate themselves with that kind of behaviour. Apart from that, crypto currencies are not viable for the Maltese economy as they do not fulfil the characteristics of money. The Maltese government cannot adopt a currency that is highly volatile and fluctuates drastically, because the government’s role, is to assure financial stability in the country. The participants highlighted that the technological aspect behind crypto currency, that is blockchain technology, is supported by the Maltese government. Legislation regarding this matter was introduced in 2018 and resulted in building a better technological infrastructure for the government and Maltese businesses alike.
Establishing whether it is possible for a cashless economy to happen in Malta

This research established that it is only a matter of time until Malta opts for a cashless economy since the Maltese government is already paving the way for this event to happen. As a matter of fact, in the budget for 2020, the government introduced a measure forbidding cash transactions exceeding €10,000 and stating that these need to be carried out digitally. The research results indicate that a cashless economy is achievable in Malta. However, it may be achievable in the long term and not in a short a period of time. The participants stressed that due to the current situation that Malta is facing with the COVID-19 pandemic, there are even further developments in the shift to a cashless economy since businesses are shifting to online platforms, and the Maltese population is experiencing this new normal of convenience, and there may be no going back.

Determining how a cashless society will affect the current Maltese economy

Results from this study show that a cashless economy will open new market operations for Malta since it will facilitate trade between countries. Since Malta is dependent on imports and exports, this will have a positive effect on the Maltese economy. A cashless society will result in more consumption, and it will increase the revenue Maltese businesses generate. On the other hand, the prices of goods and services might increase since the expenses incurred by businesses to invest in the infrastructure required to accept digital payments, will reflect in higher prices. A cashless society will also affect the smaller service sector, such as mechanics and plasterers, since these businesses owners deal with cash payments. The participants agreed that the GDP of Malta will increase with the adoption of a cashless economy.

Propositions

From the research study conducted by the researcher, the following propositions emerged:

Proposition 1: An effective educational campaign should be implemented by the government in order to implement a cashless economy. Education is an important factor in any economy, hence, for a successful implementation of a cashless economy the government must introduce various units in specific courses that directly addresses the knowledge gap required for a cashless economy to come to fruition.

Proposition 2: For a cashless economy to succeed, digital instruments and virtual currencies should be issued and backed up by a central authority. In an economy, it is a top priority that a government ensures that every citizen can participate in an economy. To ensure this, the government must make sure that both digital instruments and virtual currencies are issued and backed up by a central authority such as the CBM.

Proposition 3: Adjustments to the legislation of Malta are to be done to ensure a smooth implementation of a cashless economy. A change in the monetary legal tender is required for cashless payments to be accepted everywhere. Moreover, it is required that the government resolve the invasion of privacy issue which can be done by creating a new set of regulations regarding this matter.

Proposition 4: Incentives should be given to reduce resistance to change and bring the citizens on board with the decision. A set of incentives are to be given to citizens and businesses alike to encourage them to use digital instruments and be paid
via electronic transactions. These incentives will ensure a successful implementation of a cashless economy in Malta since it will reduce the resistance to change from cash-based, to a cashless society.

Limitations

From the research conducted a total of four limitations were identified. The current situation in Malta caused two limitations for the researcher. The interviews were scheduled to be carried out during the month of March, at the time of the outbreak of the COVID-19 in Malta. Consequently, three of the interviews were delayed, and instead of conducting the five scheduled interviews, the researcher managed to conduct four. In addition, the interviews had to be conducted virtually instead of face-to-face, as was originally planned. Although the two interviews were conducted through the means of video conferencing and was in line with MCAST guidelines, it was difficult for the researcher to monitor and assess the body language and the level of comfort of the respondents. Since the nature of the study was a qualitative one, when carrying out the interviews the researcher could have influenced the respondents in one way or another. This could create respondent bias. In addition, since the interviews were conducted through video conferencing, the respondents might not have given their true interpretation of the subject. Given that the subject researched in this dissertation is considered as a newly developed topic, the literature available was limited both locally and internationally. Even though it was a challenge to compile secondary data, it motivated the researcher to conduct this research as it contributes to this literature gap.

Recommendations for Further Research

Given that the research subject of this research paper is a newly developed phenomena, different studies must be conducted to study the implementation and the effects of a cashless economy. The author of this research recommends that further research on the subject, can focus on how education can smoothen the process of a cashless economy. This was one of the main takeaways of this research study, thus it is why the researcher is recommending it.

COVID-19 further enhanced the shift towards a cashless economy in Malta. This statement is backed up by the fact that several businesses in Malta and internationally, had to shift to online platforms in order to render a profit during the pandemic business shutdown. Therefore, the researcher recommends a study to assess the effects of COVID-19 on the progression of a cashless economy in Malta. Further research may also be done by assessing three different perspectives towards a cashless economy, which include: the citizens perspective; the businesses perspective; and the government's perspective. By assessing the aforementioned perspectives, Malta would have an integrated analysis of the implementation of a cashless economy in Malta from all the main stakeholders of the economy.
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